# HP Z620 Workstation

## Versatility redefined, still compact

More versatile than ever before. With up to 24 discrete processor cores, the HP Z620 Workstation packs a ton of computing and visualization power into a quiet, compact footprint. This dual-socket system helps you boost productivity with next-generation Intel® Xeon processors and support for multiple displays.

## HP recommends Windows.

**Big possibilities. Compact form factor.**
- With its innovative design, the HP Z620 Workstation gives you a near silent computing solution in a form factor that's a perfect fit for space-constrained environments.
- For easy servicing and upgrades, it features a completely tool-less chassis with integrated handles and a tool-free power supply.

**The performance you demand.**
- Get massive system performance with a small footprint. The HP Z620 features the next evolution in processor technology and system architecture, setting the standard for versatility with support for a single Intel E5-1600 Series Xeon® processor or dual Intel E5-2600 Series Xeon® processors.
- Now with up to 24 cores, the HP Z620 powerhouse supports a full range of processors, to help you get more done every minute.
- Support up to 192 GB of the latest generation of system memory with 12 DIMM slots and integrated 1866MHz DDR3 memory subsystem.[2] Ideal for complex data sets and the demands of a 64-bit environment.
- Take advantage of an 800 W 90% efficient power supply perfect for high-end graphics.
- Connect in a flash with 4X USB 3.0 bandwidth on an optional high-performance Thunderbolt™ 2.0 port[3] on the HP Z620.

**Bring your ideas to life, faster.**
- The HP Z620 offers a huge variety of professional graphics from NVIDIA and AMD, including Pro 2D to Extreme 3D. Integrate PCI express Gen3 graphics technology and double the bandwidth in and out of your card.[4]
- Access high-performance applications, including 2D and 3D video, on-site or from a remote location with HP Remote Graphics software[5].
- Increase productivity and spread out with the freedom of seeing and doing more all at once with support for multiple displays at peak HD resolutions.[6]

**Modify your machine.**
- Build the HP Z620 Workstation the way you want with multiple SATA and SAS RAID configuration options that support a wide range of high-performance, high capacity storage solutions.

**Complete peace of mind.**
- With ISV-certifications and 115,000 hours of testing in the HP Total Test Process, the HP Z620 is reliable and ready for business.
- Enable a consistent manageability and security framework across the enterprise from a single management console with Intel® vPro™ technology[7]
- HP workstations offer low-halogen[8] and ENERGY STAR® qualified configurations featuring efficient power supplies.
- Relax with a standard, 3-year limited warranty. Choose optional HP Care Pack Services[9] to extend your service.

# HP Z620 Workstation Specifications Table

**HP recommends Windows.**

| | |
|---|---|
| **Form Factor** | Rackable minitower |
| **Operating System** | Windows 8.1 Pro 64<br>Windows 8.1 Single Language 64<br>Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro 64)<br>Windows 7 Professional 32 (available through downgrade rights from Windows 8.1 Pro 64)<br>Windows 7 Professional 64 (available through downgrade rights from Windows 8.1 Pro (National Academic only))<br>Windows 7 Professional 32 (available through downgrade rights from Windows 8.1 Pro (National Academic only))<br>Windows 7 Professional 64<br>Windows 7 Professional 32<br>SUSE Linux Enterprise Desktop 11<br>HP Installer Kit for Linux |
| **Processor Family** | Intel® Xeon® E5 processor |
| **Processors** | Intel® Xeon® E5-2643 (3.3 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-2620 (2 GHz, 15 MB cache, 6 cores); Intel® Xeon® E5-2697 v2 (2.7 GHz, 30 MB cache, 12 cores); Intel® Xeon® E5-2695 v2 (2.4 GHz, 30 MB cache, 10 cores); Intel® Xeon® E5-2690 v2 (3 GHz, 25 MB cache, 10 cores); Intel® Xeon® E5-2680 v2 (2.8 GHz, 25 MB cache, 10 cores); Intel® Xeon® E5-2670 v2 (2.5 GHz, 25 MB cache, 10 cores); Intel® Xeon® E5-2667 v2 (3.3 GHz, 25 MB cache, 8 cores); Intel® Xeon® E5-2660 v2 (2.2 GHz, 25 MB cache, 10 cores); Intel® Xeon® E5-2650 v2 (2.6 GHz, 20 MB cache, 8 cores); Intel® Xeon® E5-2643 v2 (3.5 GHz, 25 MB cache, 6 cores); Intel® Xeon® E5-2640 v2 (2 GHz, 20 MB cache, 8 cores); Intel® Xeon® E5-2637 v2 (3.5 GHz, 15 MB cache, 4 cores); Intel® Xeon® E5-2630 v2 (2.6 GHz, 15 MB cache, 6 cores); Intel® Xeon® E5-2620 v2 (2.1 GHz, 15 MB cache, 6 cores); Intel® Xeon® E5-2609 v2 (2.5 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-2603 v2 (1.8 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-1680 v2 (3 GHz, 25 MB cache, 8 cores); Intel® Xeon® E5-1660 v2 (3.7 GHz, 15 MB cache, 6 cores); Intel® Xeon® E5-1650 v2 (3.5 GHz, 12 MB cache, 6 cores); Intel® Xeon® E5-1620 v2 (3.7 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-1607 v2 (3 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-1660 (3.3 GHz, 15 MB cache, 6 cores); Intel® Xeon® E5-1650 (3.2 GHz, 12 MB cache, 6 cores); Intel® Xeon® E5-1620 (3.6 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-1607 (3 GHz, 10 MB cache, 4 cores); Intel® Xeon® E5-1603 (2.8 GHz, 10 MB cache, 4 cores) |
| **Chipset** | Intel® C602 |
| **Maximum Memory** | Up to 48 GB 1600 MHz DDR3 Unbuffered SDRAM<br>Up to 192 GB 1600 MHz DDR3 Registered SDRAM<br>Standard memory note: Actual memory speed dependent on processor. Registered and unbuffered DIMMS may not be mixed. |
| **Memory Slots** | Up to 12 DIMMs (8 DIMMs on system board, 4 DIMMs on 2nd CPU & Memory Module) |
| **Drive Controllers** | Integrated SATA 6.0 Gb/s; Integrated SATA 3.0 Gb/s with RAID 0, 1, 10 support; LSI 9270-8i SAS 6.0 Gb/s ROC RAID (optional); LSI 9217-4i4e 8-port SAS 6.0 Gb/s RAID (optional) |
| **Internal Storage** | 300 GB up to 600 GB SAS (15000 rpm)<br>300 GB up to 1.2 TB SAS (10000 rpm)<br>500 GB up to 3 TB SATA (7200 rpm)<br>up to 500 GB SATA SED<br>128 GB up to 1 TB SATA SSD<br>up to 256 GB SATA SE SSD<br>256 GB up to 512 GB HP Z Turbo Drive (PCIe SSD) |
| **Optical Storage** | SATA DVD-ROM; SATA SuperMulti DVD+/-RW; SATA Blu-ray writer |
| **Drive Bays (Internal)** | Three 8,9 cm (3.5") |
| **Drive Bays (External)** | Three 13,3 cm (5.25") |
| **Available Graphics** | Professional 2D: NVIDIA NVS 310 (512 MB); NVIDIA NVS 315 (1 GB); NVIDIA NVS 510 (2 GB)<br>Entry 3D: NVIDIA Quadro 410 (512 MB);NVIDIA Quadro K600 (1 GB); AMD FirePro V3900 (1 GB)<br>Midrange 3D: NVIDIA Quadro K2000 (2 GB)<br>High-end 3D: NVIDIA Quadro K4000 (3 GB); NVIDIA Quadro K5000 (4 GB); AMD FirePro W7000 (4 GB); NVIDIA Quadro K6000 (12 GB)<br>High Performance GPU Computing: NVIDIA Tesla K20c; NVIDIA Tesla K40 |
| **Expansion Slots** | 2 PCIe Gen3 x16; 1 PCIe Gen3 x8; 1 PCIe Gen2 x8; 1 PCIe Gen2 x4; 1 PCI; 1 14-in-1 media card reader (optional) |
| **Ports and Connectors** | 4 USB 3.0; 5 USB 2.0; 2 IEEE 1394a; 2 microphone; 1 headphone; 2 RJ-45; 1 audio line in; 1 audio line out; 1 line in; 2 PS/2<br>HP Thunderbolt 2 1-port PCIe card (optional); HP IEEE 1394b FireWire PCIe card (optional); 6 internal USB 2.0 available by 3 separate 2x5 headers |
| **Communications** | Integrated Intel 82579LM PCIe gigabit controller; Broadcom 5761 NetXtreme gigabit NIC (optional); HP 361T PCIe dual-port gigabit NIC (optional); Intel Gigabit CT Desktop NIC (optional); HP X520 10 GbE dual-port adapter (optional); HP 10 GbE SFP+ SR transceiver (optional); Intel Ethernet I210-T1 PCIe NIC (optional) |
| **Audio** | Integrated High Definition Realtek ALC262 |
| **Power** | 800 W 90% efficient wide-ranging, active PFC |
| **Security** | Cable Lock Support (standard - cable optional); Removable Media Write/Boot Control (standard); Power-On Password (standard); Setup Password (standard); Kensington Cable Lock (optional); HP Solenoid Hood Lock and Sensor (optional); HP Solenoid Lock (optional) |
| **Software** | HP Performance Advisor; HP Remote Graphics Software (RGS) V5; HP ProtectTools Security (available as configurable option); HP Power Assistant; PDF Complete - Corporate Edition (for Windows operating systems only); Cyberlink PowerDVD/Power2Go; Office Home & Business 2013 (available as configurable option) |
| **Dimensions** | 17.15 x 46.48 x 44.45 cm |
| **Weight** | Starting at 15.5 kg<br>Exact weight depends upon configuration. |
| **Energy Efficiency Compliance** | ENERGY STAR® qualified configurations available |
| **Warranty** | 3-year limited warranty including 3 years of parts, labour, and next-business-day onsite service. Terms and conditions vary by country. Certain restrictions and exclusions apply. |

# HP Z620 Workstation

## Accessories and services (not included)

**HP ZR2440w 24-inch LED Backlit IPS Monitor**

The completely redesigned HP ZR2440w 61 cm (24") LED Backlit IPS Monitor is a 16:10 LED-based display with a breadth of new features and an LED backlight in a design that is ultra-modern and sleeker than ever to perfectly complement HP Z Workstations.
**Product number: XW477A4**

**HP SpacePilot Pro USB 3D Input Device**

Working in 3D has just become easier and more efficient with an HP SpacePilot Intelligent Controller, which combines refined sensing technology, extendable speed keys, and ergonomic design to give you 3D control, speeding up your design work -faster than you ever thought possible. When you intuitively push, tilt, or twist the control cap, the response is immediate. SpacePilot also features 21 speed keys that increase your efficiency and make working with your designs less stressful and more enjoyable, without the intrusive functionality of a mouse and keyboard alone.
**Product number: WH343AA**

**HP 160GB SATA Solid State Drive**

Solid State Drives (SSDs) are fast becoming a real force with respect to storage in the computer industry. With no moving parts, storage is no longer bound by mechanical barriers to higher performance. HP SSDs for workstations offer overall performance typcially beyond that of SAS 15k rpm HDDs (Hard Disk Drives).
**Product number: LZ704AA**

**NVIDIA Quadro 4000 2.0GB Graphics Card**

Accelerate your entire workflow with NVIDIA's High End Quadro 4000 graphics card: Up to 5X faster 3D application performance scaling over previous generation Quadro FX3800; GPGPU applications run 8X faster on Quadro GPUs compared to other processors Revolutionary Quadro GPU architecture; World's first GPU with Scalable Geometry and fast double-precision performance
**Product number: WS095AA**

**AMD FirePro V5900 2GB Graphics Card**

The AMD FirePro™ V5900 professional graphics delivers remarkable performance in a single slot solution, making it a perfect solution for professionals working with a broad range of applications, moderately complex models and datasets, and advanced visual effects. The AMD FirePro V5900 features 2GB of GDDR5 memory, 512 stream processors, and support for three simultaneous monitor outputs from a single graphics card with AMD Eyefinity technology.
**Product number: LS992AA**

**5-year Next Business Day Onsite**

Receive 5 years of next business day onsite repair from an HP-qualified technician for your computing device, if the issue cannot be solved remotely.
**Product number: U7944E**

**Learn more at**
**www.hp.eu/hpoptions**

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**HP recommends Windows.**

## Messaging Footnotes:

[1] Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology.[2]. Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations.

[2] Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

[3] Thunderbolt is new technology. Thunderbolt cable and Thunderbolt device (sold separately) must be compatible with Windows. To determine whether your device is Thunderbolt Certified for Windows, see https://thunderbolttechnology.net/products. Thunderbolt™ 2.0 is planned to be available via an optional add-in card in early 2014.

[4] Optional features sold separately or as add on features.

[5] HP Remote Graphics Software requires Windows and an internet connection.

[6] Support for external displays as a standard feature through integrated processor-based graphics is dependent upon the particular workstation configuration; the actual number of displays supported will vary. An optional graphics solution will be required for the support of additional displays. Additional cables required. HD (high-definition) content required to view HD images.

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